Patent claims

1. Adhesive tape comprising at least one layer of a radiation curable precursor of an adhesive and at least one film having two essentially parallel surfaces wherein at least one of said surfaces which is in contact with said radiation curable precursor, comprises a series of recesses therein and can be removed from said optionally partially cured precursor, and wherein said radiation curable precursor exhibits a loss tangent of at least 1 at a temperature of 50 °C.

2. Adhesive tape according to claim 1 wherein said adhesive exhibits a loss tangent of between 1-10 at 50 °C.

3. Adhesive tape according to any of the preceding claims wherein the radiation curable precursor comprises one or more radiation curable polymer materials, optionally one or more non-radiation curable polymer materials and an effective amount of a photoinitiator.

4. Adhesive tape according to claim 3 wherein the radiation curable polymer materials are selected from a group comprising epoxy containing polymer materials and/or polymer materials with unreacted vinyl groups and/or unreacted (meth)acrylate groups.

5. Adhesive tape according to claims 3 or 4 wherein the non-radiation curable polymer materials are selected from a group comprising polyolefins, polester, (meth)acrylate polymers, polyurethanes, fluoropolymers, ethylene-vinyl acetate polymers, rubber based polymers and blends of two or more of these polymer materials.

6. Adhesive tape according to any of the preceding claims wherein the film comprises polymeric materials, metals, paper, non-woven materials or combinations of these materials.

7. Adhesive tape according to any of the preceding claims wherein the recesses have a cross-sectional shape selected from polygonal or curved.

8. Adhesive tape according to any of the preceding claims wherein the number of recesses is from 1 – 10,000/cm^2.

9. Adhesive tape according to any of the preceding claims wherein the recesses form a pattern.

10. Adhesive tape according to any of the preceding claims wherein the ratio of the sum of the average extension of the projections and the average depth of the recesses to the average of the radiation curable adhesive layer is at least 0.2.

11. Adhesive tape according to any preceding claim wherein the radiation-curable adhesive layer is reinforced by a layer of a non-woven material.

12. Adhesive tape according to claim 11 wherein the ratio of the thickness of the reinforcing layer of the non-woven material to the thickness of the radiation-curable adhesive layer is from 0.1 to 0.9.

13. Adhesive tape according to any preceding claim comprising a backing.

14. Adhesive tape according to any of the preceding claims wherein the radiation-curable precursor is tacky.

15. Adhesive tape according to any of the preceding claims wound up in the form of a roll.

16. Method of applying an adhesive tape according to any of claims 1-14 to a substrate comprising the steps of applying the optionally partially cured radiation curable precursor to said substrate and subsequently curing said precursor.